What is claimed is:

1. A method of treating diseases resulting from complement activation comprising the steps of:

(a) selecting an inhibitor molecule from the group consisting of antibodies, peptides, peptitomimetics, peptides containing 2-20 aminoacids, oligonucleotides containing 2-20 nucleotides, and small organic molecule with molecular weight is less than 2000 Daltons;

(b) establishing by *in vitro* assay procedures that said inhibitor binds to factor B;

(c) establishing by *in vitro* assay procedures that said inhibitor further prevents factor B binding to properdin and properdin-bound C3b; prevents the release of Bb; reduces C3a, C5a, and C5b-9 generation in blood; reduces C3 conversion into C3a and C3b; reduces C5 conversion into C5a and C5b; reduces the activation of neutrophils, monocytes and platelets; or inactivates the cells bearing C3a and C3a receptors; and

(d) delivering an effective amount of said inhibitor to an individual through subcutaneous, intravenous, intranasal, intratracheal, intraspinal, intracranial, or oral administration.

2. The method of claim 1, wherein said inhibitor is a whole or fragmented anti-factor B antibody.

3. The method of claim 2, wherein said antibody is a chimeric, deimmunized, humanized, or human antibody.

4. The method of claim 1, wherein said fragmented antibody comprises F_{ab}, $F_{(ab)2}$, F_v, or a single chain fragment.

5. The method of claim 1, wherein said inhibitor is a peptidiomimetic or a polypeptide containing 2-10 aminoacids.

6. The method of claim 1, wherein said inhibitor is a small molecule with molecular weight less than 700 Daltons.

7. A method claim 1, wherein said disease is selected from the group consisting of, myocardial infarction, ischemia/reperfusion injury, stroke, acute respiratory distress syndrome (ARDS), burn injury, cardiopulmonary bypass inflammation, extracoporeal circulation, radiographic contrast media induced allergic response, transplant rejection, multiple sclerosis, myasthenia gravis, pancreatitis, rheumatoid arthritis, Alzheimer's disease, asthma, thermal injury, anaphylactic shock, bowel inflammation, urticaria, angioedema, vasculitis, Sjogren's syndrome, lupus erythromatosus, and membranous nephritis, dermatomyositis, vascular stenosis and restenosis.

8. The method of claim 7, wherein said disease is myocardial infarction.

9. The method of claim 7, wherein said disease is ischemia/reperfusion injury.

10. The method of claim 7, wherein said disease is cardiopulmonary bypass inflammation.

11. The method of claim 7, wherein said disease is vascular stenosis and restenosis.

12. The method of claim 7, wherein said disease is vasculitis.

13. The method of claim 7, wherein said disease is rheumatoid arthritis.

14. The method of claim 7, wherein said disease is myasthenia gravis.

15. The method of claim 7, wherein said disease is lupus erythomatosis.

16. The method of claim 7, wherein said disease is dermatomysitis.

17. The method of claim 7, wherein said disease is stroke.

18. The method of claim 7, wherein said disease is Alzheimer's disease.

19. The method of claim 7, wherein said disease is multiple sclerosis.

20. The method of claim 7, wherein said disease is transplant rejection.

21. The method of claim 7, wherein said disease is membranous nephritis.

22. A method of inhibiting complement activation comprising the steps of:

(a) selecting an inhibitor molecule from the group consisting of peptidomimetic, peptides containing 2-20 aminoacids, oligonucleotides containing 2-20 nucleotides, and small organic molecule with molecular weight is less than 2000 Daltons;

(b) establishing by *in vitro* assay procedures that said inhibitor binds to factor B; and

(c) establishing by *in vitro* assay procedures that said inhibitor further prevents factor B binding to properdin and properdin-bound C3b; prevents the release of Bb; reduces C3a, C5a, and C5b-9 generation in blood; reduces C3 conversion into C3a and C3b; reduces C5 conversion into C5a and C5b; reduces the activation of neutrophils, monocytes and platelets; or inactivates the cells bearing C3a and C3a receptors.

23. The method of claim 22, wherein said inhibitor is a peptidomimetic or a polypeptide containing 2-10 aminoacids.

24. The method of claim 22, wherein said inhibitor is a small molecule with molecular weight less than 700 Daltons.